



# COMMERCIAL TRIAL DATA

COMMERCIAL CITRUS TRIAL



Achieve Maximum Micronutrient  
Uptake with Geo Micronutrients



## SUMMARY

Plants require micronutrients which are metals to be 'chelated' in order for them to uptake them. Common micronutrient products on the market today use synthetic chelators, typically EDTA and HEDTA. These synthetic forms of chelation bind up the mineral too aggressively making them mostly unavailable to the plant. In addition, the synthetic form of chelators used are not recognized by the plant when applied, further reducing the plants uptake of the mineral.

The Geo line of micronutrients including Geo Mag, Geo Fe, Geo Mn, Geo Zn, Geo Cu, and Geo FMZ are formulated using a complex blend of naturally occurring plant compounds. These plant compounds are created by plant root exudates and microbial enzymes and are thus "recognized" by the plant when applied. This allows for significantly better uptake compared to synthetic chelation where the mineral is too tightly bound to the chelator and the plant does not recognize the chelation component.

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✔ Geo micronutrients are chelated using a blend of complex naturally occurring plant and microbial compounds

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✔ Through this chelating process minerals are micronized providing better leaf-stomata penetration

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✔ Plants recognize these chelation compounds further increasing uptake and utilization by the plants

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✔ This process is validated through the use of sap analysis showing significant increases in nutrient uptake after application

## KEY USES OF GEO MICRONUTRIENTS

✔ Soil or foliar application on all crops depending on need

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✔ Apply during bloom and in season to make up for nutrient deficiencies and get your plants functioning to their maximum capacity

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✔ Consult with a Penny Newman representative to figure out what Geo Micronutrient Products are best for you

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## **GEO MICRONUTRIENT CITRUS TRIAL DETAILS**

- ▶ Trialing conducted using 1 gal/acre foliar applied Geo FMZ on 4 citrus blocks, with two control blocks.

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- ▶ The first sap samples on all six blocks were taken in October 2022 prior to application.

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- ▶ Geo FMZ was applied mid December, and second sap samples in mid January 2023.

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- ▶ All blocks are mature citrus, using blend of organic and conventional management

## **STANDARD APPLICATION RATES**

- ▶ Foliar Application: 1 quart to ½ gallon/acre during bloom

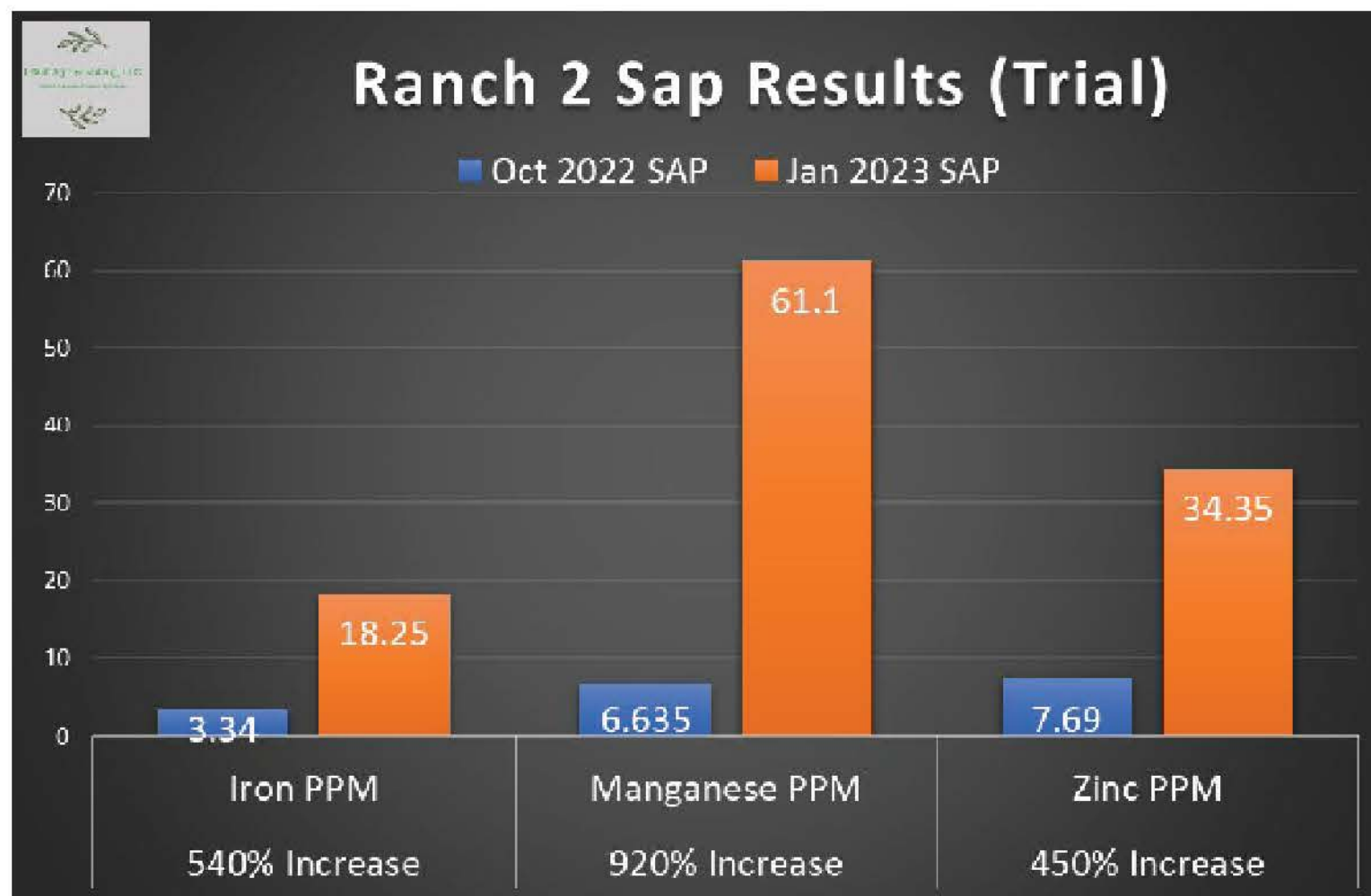
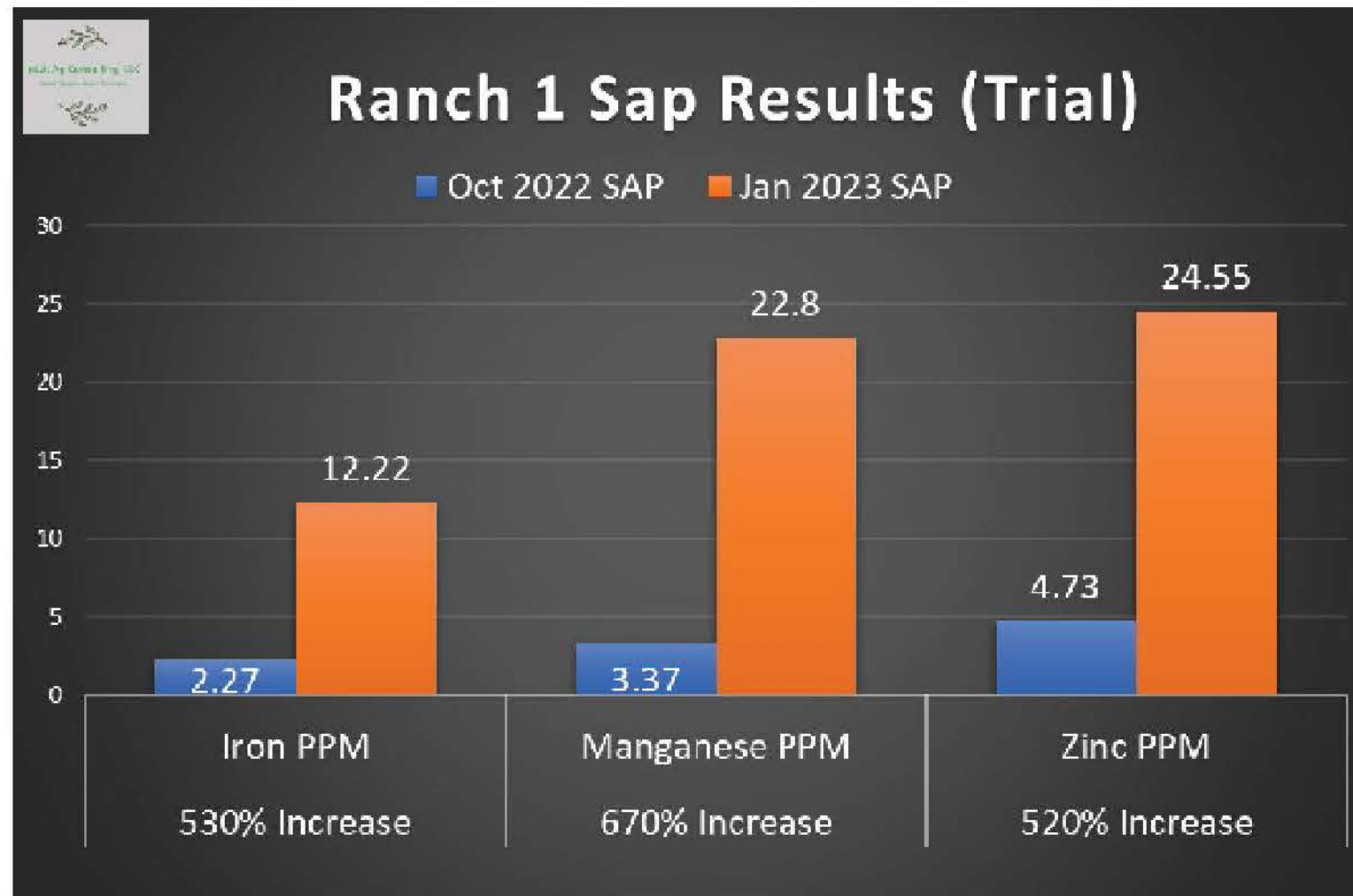
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- ▶ Soil or Foliar Application: ½ gallon to 1 gallon/acre in season based on need

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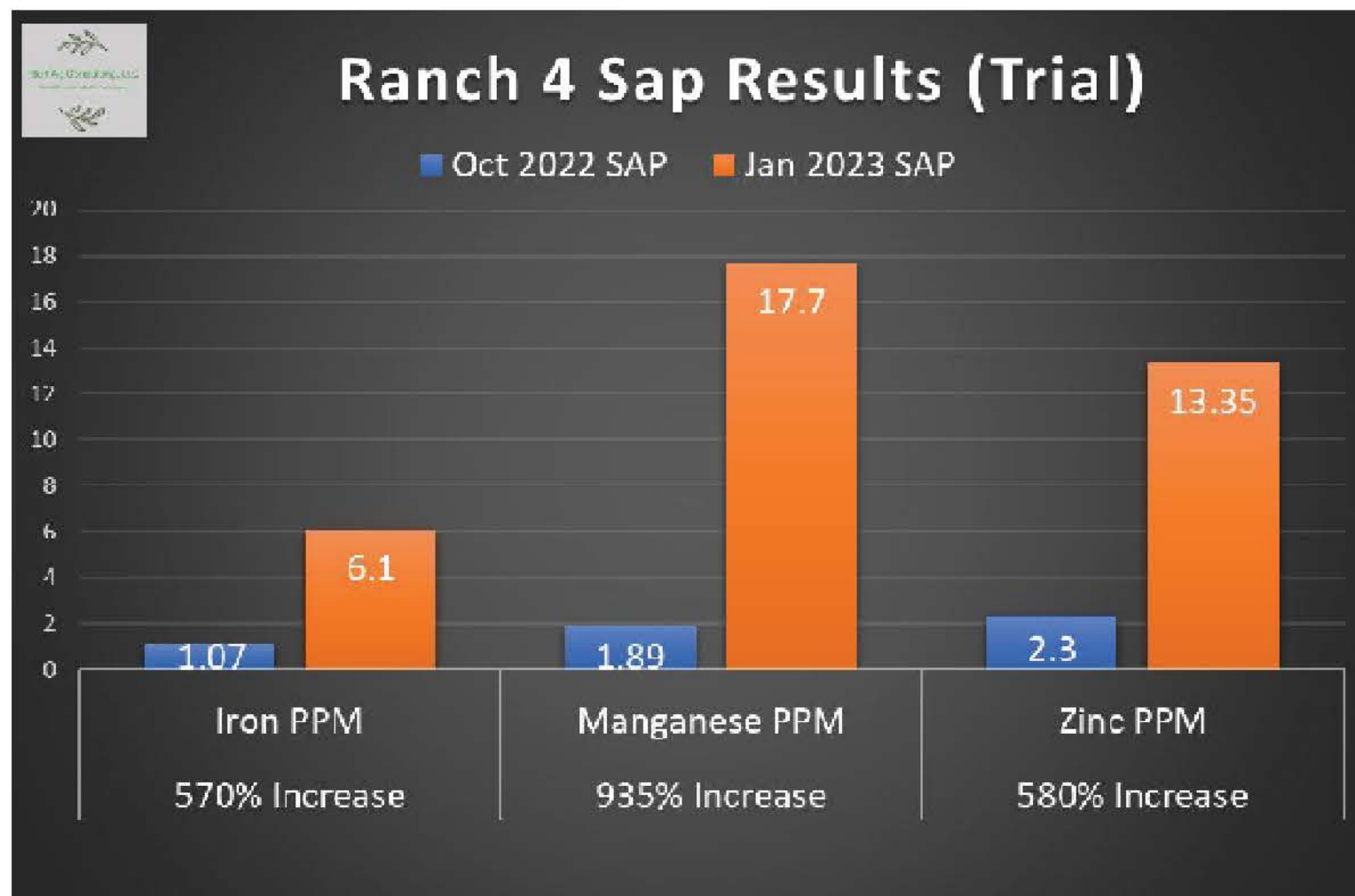
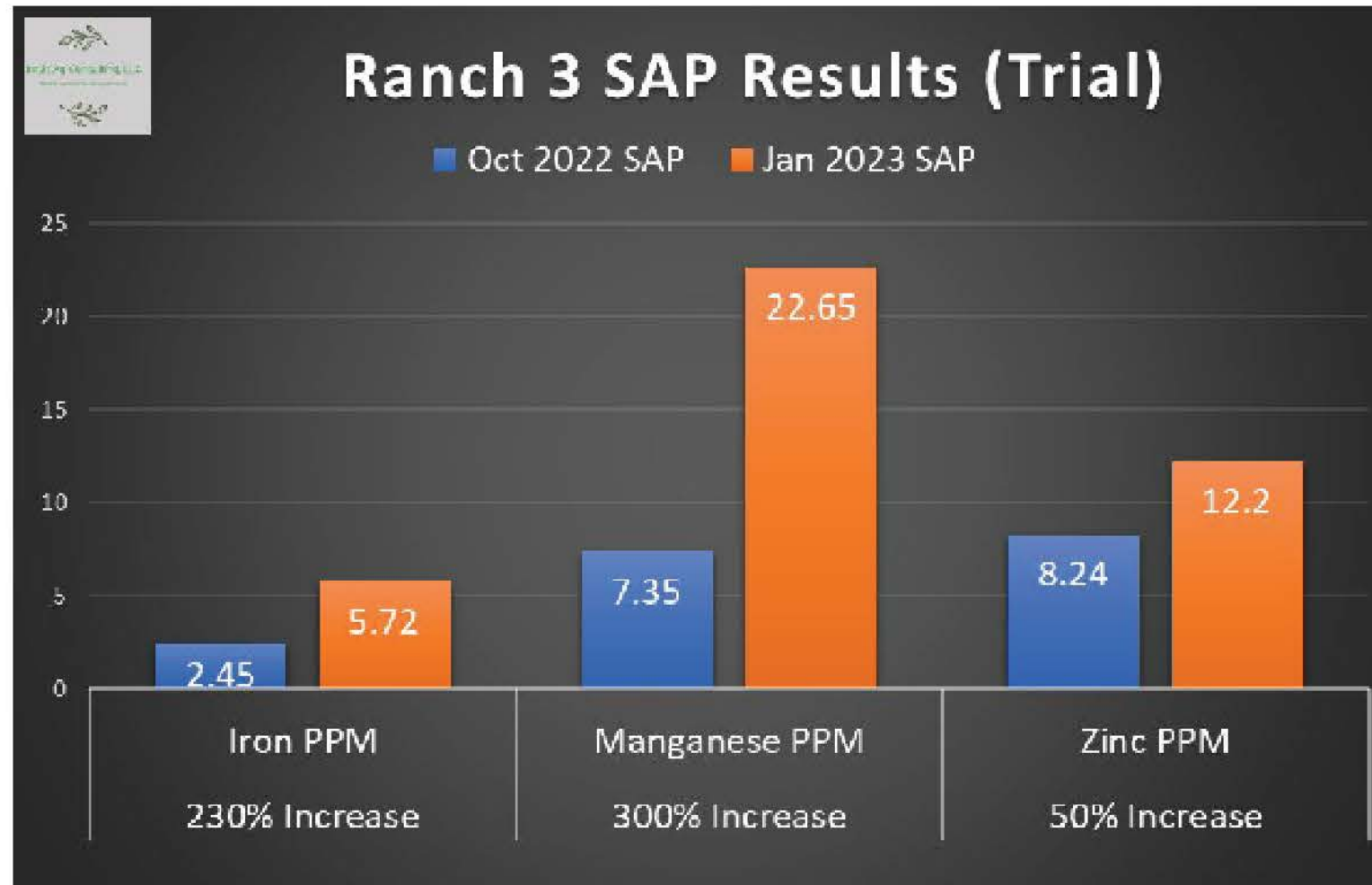
## Geo FMZ Trial Blocks - Maximum micronutrient uptake achieved!



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